

CLAIMS

1. A surfactant composition comprising at least one branched non-ionic surfactant and at least one surfactant capable of forming liquid crystals in water.
2. A composition according to claim 1 wherein the branched non-ionic surfactant comprises a branched alkyl group comprising in the range from 12 to 20 carbon atoms.
3. A composition according to claim 2 wherein the branched alkyl group comprises in the range from 0.2 to 3 side-branches.
4. A composition according to claim 3 wherein the side branched groups are alkyl groups comprising in the range from 2 to 9 carbon atoms.
5. A composition according to any one of the preceding claims wherein the branched non-ionic surfactant comprises a polyoxyalkylene group.
6. A composition according to claim 5 wherein the polyoxyalkylene group is a homopolymeric polyoxyethylene chain containing in the range from 15 to 25 ethylene oxide residues.
7. A composition according to any one of the preceding claims wherein the branched non-ionic surfactant comprises a primary alcohol alkoxylate.
8. A composition according to claim 7 wherein the primary alcohol alkoxylate is of the formula:

$$\text{CH}_3 - (\text{CH}_2)_q - [\text{CH}_3 - (\text{CH}_2)_r] - \text{CH} - (\text{CH}_2)_p - \text{O} - (\text{C}_m\text{H}_{2m}\text{O})_n - \text{H} \quad (\text{I})$$
 wherein
 q and r are each independently from 0 to 13, preferably 1 to 15, more preferably 2 to 13; and p is 1 or 2;
 such that q+r+p is in the range from 9 to 17, preferably 10 to 16, more preferably 11 to 15; and
 (C_mH_{2m}O)_n is a polyoxyalkylene group where m is 2, 3 or 4, and n is in the range from 5 to 40.

9. A composition according to any one of the preceding claims wherein the surfactant capable of forming liquid crystals in water comprises a non-alkoxylated polyol ester.
- 5 10. A composition according to claim 9 wherein the polyol is an anhydro-saccharide and/or the ester is derived from a fatty acid comprising in the range from 12 to 22 carbon atoms.
- 10 11. A composition according to either one of claims 9 and 10 wherein the surfactant capable of forming liquid crystals in water additionally comprises a polyol ester derived from a saccharide.
- 15 12. A composition according to claim 11 wherein the saccharide is sucrose or sorbitol, and/or the ester is derived from a fatty acid comprising in the range from 8 to 18 carbon atoms.
- 20 13. A composition according to any one of the preceding claims wherein the surfactant capable of forming liquid crystals in water comprises a mixture of a sorbitan ester and a sucrose ester or a sorbitol ester.
- 25 14. A composition according to claim 13 wherein the surfactant capable of forming liquid crystals in water comprises a mixture of sorbitan stearate and sucrose cocoate or sorbitol laurate.
- 30 15. A composition according to any one of the preceding claims wherein the HLB value of (i) the branched non-ionic surfactant is in the range from 13 to 18, (ii) the surfactant capable of forming liquid crystals in water is in the range from 4 to 8, and (iii) the total surfactant composition is in the range from 8 to 12.
- 35 16. An oil in water or water in oil emulsion comprising an emulsifier system for the oil which comprises at least one branched non-ionic surfactant and at least one surfactant capable of forming liquid crystals in water.
17. A personal care or cosmetic product comprising at least one branched non-ionic surfactant and at least one surfactant capable of forming liquid crystals in water.

18. A container comprising a spray nozzle and a sprayable personal care or cosmetic product comprising at least one branched non-ionic surfactant and at least one surfactant capable of forming liquid crystals in water.

- 5 19. The use of a surfactant composition comprising at least one branched non-ionic surfactant and at least one surfactant capable of forming liquid crystals in water to stabilize an oil in water emulsion.

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